PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44*bis*)

Applicant's or agent's file reference 152712.6 IL	**FOR FURTHER ACTION**	See item 4 below
International application No PCT/IL2004/000599	International filing date (*day/month/year*) 06 July 2004 (06.07.2004)	Priority date (*day/month/year*) 07 July 2003 (07.07.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant GRAN COMPUTER INDUSTRIES LTD.		

1 This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis* 1(a)

2 This REPORT consists of a total of 8 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3 This report contains indications relating to the following items:

- ☒ Box No. I — Basis of the report
- ☒ Box No. II — Priority
- ☐ Box No. III — Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV — Lack of unity of invention
- ☒ Box No. V — Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI — Certain documents cited
- ☐ Box No. VII — Certain defects in the international application
- ☐ Box No. VIII — Certain observations on the international application

4 The International Bureau will communicate this report to designated Offices in accordance with Rules 44*bis* 3(c) and 93*bis*.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44*bis* 2).

	Date of issuance of this report 09 January 2006 (09.01.2006)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35	Authorized officer Simin Baharlou Telephone No. +41 22 338 71 30

Form PCT/IB/373 (January 2004)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43*bis*.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/IL2004/000599	06.07.2004	07 07 2003

International Patent Classification (IPC) or both national classification and IPC
G01N21/87, G01N33/38

Applicant
GRAN COMPUTER INDUSTRIES LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No I Basis of the opinion
- ☒ Box No II Priority
- ☐ Box No III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No IV Lack of unity of invention
- ☒ Box No V Reasoned statement under Rule 43*bis* 1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No VI Certain documents cited
- ☐ Box No VII Certain defects in the international application
- ☐ Box No VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notifed the International Bureau under Rule 66 1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later

For further options, see Form PCT/ISA/220

3. For further details, see notes to Form PCT/ISA/220

Name and mailing address of the ISA:

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D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
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Authorized Officer

Croucher, J

Telephone No +49 89 2399-2704

Box No. I Basis of the opinion

1 With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was field, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12 3 and 23.1(b)).

2 With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material:

☐ a sequence listing

☐ table(s) related to the sequence listing

b format of material:

☐ in written format

☐ in computer readable form

c. time of filing/furnishing:

☐ contained in the international application as filed.

☐ filed together with the international application in computer readable form

☐ furnished subsequently to this Authority for the purposes of search

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

Box No. II Priority

1 ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-20, 23-29
	No:	Claims	21,22
Inventive step (IS)	Yes:	Claims	1-20
	No:	Claims	21-29
Industrial applicability (IA)	Yes:	Claims	1-29
	No:	Claims	-

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1 Prior art

1.1 Reference is made to the following documents:

D1 SCHMIDT, W. Optische Spektroskopie. Weinheim: Wiley, 2000, ISBN 3-527-29828-2, pages 123-131.

D2 GOLLON, P. and LEDERER, U. Diamond valuation: The Cutting Edge. Professional Jeweler Magazine Archives [online]. June 2003 [retrieved on 06-10-2004]. Retrieved from the Internet: <http://www.professionaljeweler.com/archives/articles/2003/jun03/0603man2.html>.

D3 GOLLON, P. and LEDERER, U. Diamond Evaluation: A Changed World. Professional Jeweler Magazine Archives [online]. June 2003 [retrieved on 06-10-2004]. Retrieved from the Internet: http://www.professionaljeweler.com/archives/articles/2003/may03/0503man4.html>.

2 Novelty - Article 33(2) PCT

2.1 The present application does not meet the requirements of Article 33(2) PCT, because the subject-matter of Claims 21 and 22 is not new in the sense of Article 33(2) PCT.

2.2 Document D1 discloses the method of Claim 21, in that the Bouger-Lambert-Beer law is an empirical equation relating the absorption of light to the properties of the material the light is travelling though. From this law it is known that radiation is absorbed to an extent that depends on the wavelength of the radiation and the thickness and nature of the medium.

2.3 Claims 21 and 22, which merely rephrase the Bouger-Lambert-Beer law, are therefore not novel.

3 Inventive step - Article 33(3) PCT

3.1 The present application does not meet the requirements of Article 33(3) PCT, because the subject-matter of Claims 23-29 are not inventive.

3.2 The subject-matter of Claims 23, 24 and 27-29 differs from D1 in that the geometry is measured by using a computer-controlled gemstone-mapping device. Such a device is known, however, from D2, and for the skilled person faced with the problem of measuring the geometry of a gemstone in order to find absorption coefficient, it would be obvious to try using a gemstone-mapping device.

3.3 The solution proposed in Claims 23, 24 and 27-29 of the present application cannot therefore be considered as involving an inventive step.

3.4 Similarly, the subject-matter of Claims 25-29 differs from D1 in that the gemstone colour is measured by using a computer-controlled colorimeter. Such a device is known, however, from D2, and for the skilled person faced with the problem of measuring the colour of a gemstone in order to find absorption coefficient, it would be obvious to try using a colorimeter.

3.5 The solution proposed in Claims 25-29 of the present application cannot therefore be considered as involving an inventive step.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1 Prior art

1.1 Reference is made to the following documents:

D1 SCHMIDT, W. Optische Spektroskopie. Weinheim: Wiley, 2000, ISBN 3-527-29828-2, pages 123-131.

D2 GOLLON, P. and LEDERER, U. Diamond valuation: The Cutting Edge. Professional Jeweler Magazine Archives [online]. June 2003 [retrieved on 06-10-2004] Retrieved from the Internet: <http://www.professionaljeweler.com/archives/articles/2003/jun03/0603man2.html>.

D3 GOLLON, P. and LEDERER, U. Diamond Evaluation: A Changed World. Professional Jeweler Magazine Archives [online]. June 2003 [retrieved on 06-10-2004]. Retrieved from the Internet: http://www.professionaljeweler.com/archives/articles/2003/may03/0503man4.html>.

2 Novelty - Article 33(2) PCT

2.1 The present application does not meet the requirements of Article 33(2) PCT, because the subject-matter of Claims 21 and 22 is not new in the sense of Article 33(2) PCT.

2.2 Document D1 discloses the method of Claim 21, in that the Bouger-Lambert-Beer law is an empirical equation relating the absorption of light to the properties of the material the light is travelling though. From this law it is known that radiation is absorbed to an extent that depends on the wavelength of the radiation and the thickness and nature of the medium.

2.3 Claims 21 and 22, which merely rephrase the Bouger-Lambert-Beer law, are therefore not novel.

3 Inventive step - Article 33(3) PCT

3.1 The present application does not meet the requirements of Article 33(3) PCT, because the subject-matter of Claims 23-29 are not inventive.

3.2 The subject-matter of Claims 23, 24 and 27-29 differs from D1 in that the geometry is measured by using a computer-controlled gemstone-mapping device. Such a device is known, however, from D2, and for the skilled person faced with the problem of measuring the geometry of a gemstone in order to find absorption coefficient, it would be obvious to try using a gemstone-mapping device.

3.3 The solution proposed in Claims 23, 24 and 27-29 of the present application cannot therefore be considered as involving an inventive step.

3.4 Similarly, the subject-matter of Claims 25-29 differs from D1 in that the gemstone colour is measured by using a computer-controlled colorimeter. Such a device is known, however, from D2, and for the skilled person faced with the problem of measuring the colour of a gemstone in order to find absorption coefficient, it would be obvious to try using a colorimeter.

3.5 The solution proposed in Claims 25-29 of the present application cannot therefore be considered as involving an inventive step.